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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,298

01/23/2006

Virginie Studer

979-124

4902

39600

7590

02/25/2011

SOFER & HAROUN LLP.

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NEW YORK, NY 10017

EXAMINER

LEONARD, MICHAEL L

ART UNIT

PAPER NUMBER

1763

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/528,298	STUDER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	MICHAEL LEONARD	1763	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11, 12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11, 12 and 14-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/08/2009 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11-12, and 14-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, claims 11 and 20 require wherein said heating "is to a temperature sufficient to cause a reaction between...". This limitation, particularly, the temperature at which the reaction occurs has not found in the specification and thus constitutes new matter.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-12, and 14-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, claims 11 and 20 require wherein said heating "is to a temperature sufficient to cause a reaction between...".

The language sufficient renders the claims indefinite because what constitutes a sufficient temperature to cause a reaction between OH-containing reactants containing at least 15 aliphatic carbon atoms and NCO-containing reactants.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

Claims 11-12, 15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,766,194 to Robertson as evidenced by U.S. Patent No. 4,131,603 to Perrey et al. and U.S. Patent No. 4,975,514 to Watanabe et al.

As to claim 11, Robertson discloses a self-lubricating polyurethane coating composition and a method for its production comprising the reaction product of (A) modified polyisocyanate and (B) base polymer, wherein the resulting coating preferably has superior abrasion resistance (Abstract, Column 12, lines 12-16, and 26-31).

Component (A) is the reaction product of a triisocyanate, such as isocyanurates and/or

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biurets, with monofunctional compounds having 10-40 aliphatic carbon atoms chains (Column 2, lines 16-25, Column 5, lines 27-29, 45, Column 6, lines 3-6, 31-65, and column 12, lines 25-28). Additional isocyanate-reactive compounds may be present which reacts with free isocyanate in the composition, wherein said additional isocyanate-reactive compound consists of diols and diamines (Column 10, lines 50-52). Robertson discloses wherein the fatty alcohol or fatty amine containing 10-40 carbon atoms can be incorporated into the polyisocyanate component in order to prereact with the polyisocyanate using conventional stirrers at temperatures of from 20 to 30 °C (Column 12, lines 25-30, column 13, line 27).

It is noted that Robertson discloses a pre-reaction between the triisocyanate and mono-functional compounds would commence at temperatures of from 20 to 30 °C, which meets the limitations to a temperature sufficient to cause a reaction between...” Furthermore, Perrey discloses the preparation of partially blocked polyisocyanates using fatty alcohols and fatty amines containing more than 15 carbon atoms (Columns 3-4), wherein the reaction can be carried out in inert solvents at a lower or increased temperature, working preferably in a temperature range between 0 and 140 °C (Column 4, lines 42-47). As such, as evidenced by the disclosure of Perrey “a temperature sufficient to cause a reaction between said isocyanate function with said terminal functional group” can be a range from 20 to 30 °C as disclosed by Robertson.

As to claim 12, Robertson discloses the mono-functional compounds having C10-C40 aliphatic chains are fatty alcohols/amines (Column 6, lines 31-65).

As to claim 15, Robertson discloses wherein component (B) consists of polyesters and/or polyurethanes (Column 3, lines 21-35; Column 4, lines 52-58).

As to claim 18, Robertson fails to explicitly teach additional diisocyanate that has not been modified with mono-functional fatty alcohols/amines.

Nevertheless, it would have been obvious to add in additional pure diisocyanate monomer based on the disclosure of Robertson (Column 11, lines 49-55), which teaches that although diol and diamine act as the chain extenders, free diisocyanate may also act as a chain extender, causing cross-links between isocyanate reactive species. Therefore, it would have been obvious to add in additional diisocyanate monomer based on the motivation that Robertson discloses it as suitable compound for additional chain-extending in the polyurethane composition and it is *prima facie* obvious to add a known ingredient to a known composition for its known function. *In re Lindner* 173 USPQ 356; *In re Dial et al* 140 USPQ 244.

Furthermore, it would have been obvious to combine the additional diisocyanate monomer with the A) compounds, not B), since said monomers contain free NCO groups and would react with any free hydroxyl and/or amino groups; the separation of monomer with B) prevents any premature chain extending and also the addition of additional diisocyanate dilutes the partially blocked polyisocyanate, which decreases the amount of solvent needed, which provides improvement in production facilities, cost, and processability as evidenced by Watanabe (Column 2, lines 48-49, Column 3, lines 32-41).

Claims 14, 16-17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,766,194 to Robertson as evidenced by U.S. Patent No. 4,131,603 to Perrey et al. and U.S. Patent No. 4,975,514 to Watanabe et al that has been explained above and is applied here as such in view of EP-072,178 to Miyake et al. and U.S. Patent. No. 4,281,095 to Dunwald et al.

The rejection can be found in the final rejection mailed 07/02/2009, Paragraphs 10-18 and is herein incorporated by reference.

### ***Response to Amendment***

The Declaration under 37 CFR 1.132 filed 12/08/2009 is insufficient to overcome the rejection of claims 11-12, and 14-20 based upon Robertson as set forth in the last Office action because: firstly, the examiner provided new prior art to suggest that a pre-reaction between fatty alcohols/amines containing 10-40 carbon atoms would occur at temperatures between 20 and 30°C because Perrey discloses the preparation of partially blocked polyisocyanates using fatty alcohols and fatty amines containing more than 15 carbon atoms (Columns 3-4), wherein the reaction can be carried out in inert solvents at a lower or increased temperature, working preferably in a temperature range between 0 and 140°C (Column 4, lines 42-47). As such, as evidenced by the disclosure of Perrey “a temperature sufficient to cause a reaction between said isocyanate function with said terminal functional group” would occur from 20 to 30°C as disclosed by Robertson.

Secondly, the applicants' only made suggestions that such reaction would not proceed without providing necessary data to show that temperatures between 20 and 30 °C is NOT sufficient to cause a reaction between said isocyanate functional group with said terminal functional group. Because Perrey suggests that a reaction would proceed at these low temperatures, the opinion declaration is not sufficient to overcome the rejection.

### ***Response to Arguments***

Applicant's arguments filed 12/08/2009 have been fully considered but they are not persuasive. The applicants' argue that the temperature range disclosed by Robertson is NOT sufficient to cause a reaction between said isocyanate functional group with said terminal functional group. However, because Perrey suggests that a reaction would proceed at these low temperatures, the arguments are considered moot minus any showing that such reaction would not proceed.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL LEONARD whose telephone number is (571)270-7450. The examiner can normally be reached on Mon-Fri 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Milton I. Cano/  
Supervisory Patent Examiner, Art Unit 1763

/MICHAEL LEONARD/  
Examiner, Art Unit 1763